



# **Business Systems & Cybernetics Center at TCS - Driving Technology's Future**

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## - **Cybernetics research @ TCS**

The association with Prof. Norbert Wiener can be traced back to the 2012 IEEE Founder's Medal recipient, Dr. F. C. Kohli, our former chairman who is often referred to as the 'Father of the Indian Software Industry' due to his significant contribution, a student of Prof. Norbert Wiener at Massachusetts Institute of Technology (MIT) in 50's. This relationship seeded in Dr. Kohli a vision to start the Systems Engineering & Cybernetics Centre (SECC) in TCS in 1981 by inviting Prof. P.N. Murthy from IIT Kanpur to head the unit in TCS. The center studied the areas of Systems Engineering and Cybernetics, articulated new models and applied them for resolving complex business & socio economic problems by undertaking consulting assignments from Public Sector, Governments and Industry.

SECC later re-christened in present form as [Business Systems and Cybernetics Centre \(BS&CC\)](#) has been presenting these concepts and models in several International conferences and has published them in journals and conference proceedings. The work at this research centre has resulted in several models using cybernetics principles; one of the key model is Cybernetics Influence Diagram (CID) which helps in understanding the cybernetics nature of the system. The current focus of this research center is in the areas of consulting, competence, quality, value and design under an umbrella program called Trusted Business Adviser™.

The cybernetics center's earlier work in addressing one of the societal challenge of adult literacy (called [Computer Based Functional Literacy](#)) has received several accolades in international forums.

## - **Research Lead Business Innovation:**

[Business Systems and Cybernetics Centre \(BS&CC\)](#) is part of TCS' Corporate Technology Organization.

The group specializes in developing methodologies using Systems Thinking principles towards designing business solutions and developing competencies that characterize the TCS way for end-to-end Consulting and Services.

The TCS Corporate Technology Office governs formal research and innovation in the company. We have several disruptive innovations to our credit and we set up our first research lab in 1981 when the IT industry in India was just taking shape. We adopted model-driven development and created toolsets for each phase of the application development lifecycle.

Today, TCS research is focused on Software, Applications and Systems exploration. Our Research and Innovation teams, through a global network of TCS Innovation Labs, work across domains and new technologies to deliver a range of solution frameworks to help your business to optimize, analyze, digitize, de-risk and sustain.

In the true spirit of collaboration and open innovation, we have created a co-innovation network, TCS COIN™ that connects with several entities in the innovation ecosystem such as emerging technology companies, venture funds, academic research, strategic partners and key customers. The group co-innovates, capitalizing on the strengths of each, for the benefit of all.

To know more about TCS Research, please visit [www.tcs.com/research](http://www.tcs.com/research)

**About Tata Consultancy Services (TCS)**

Tata Consultancy Services is an IT services, consulting and business solutions organization that delivers real results to global business, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled infrastructure, engineering and assurance services. This is delivered through its unique Global Network Delivery Model™ , recognized as the benchmark of excellence in software development. A part of the Tata Group, India's largest industrial conglomerate, TCS has a global footprint and is listed on the National Stock Exchange and Bombay Stock Exchange in India. .

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